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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/544,116

10/04/2005

Luc Moens

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EXAMINER

LISTVOYB, GREGORY

ART UNIT

PAPER NUMBER

1796

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/544,116	<b>Applicant(s)</b> MOENS ET AL.	
	<b>Examiner</b> GREGORY LISTVOYB	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 29-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 29-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/20/2009 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29-41 rejected under 35 U.S.C. 102(b) as being anticipated by Moens et al (WO 98/18862, cited with equivalent US patent 6635721) (cited in the previous Office Action).

Regarding claims 29-33, Moens discloses thermosetting composition (see Abstract) comprising amorphous polyester with acid number within the range of 15-100 mg KOH (see Claim 1) containing 70-100% mol of Isophthalic Acid 0-30% of at least one other aliphatic acid 70-100 mol% of neopentyl diol and 0-30 mol% of at least one other

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aliphatic polyol (see Abstract) and hydroxyalkylamide as a crosslinking agent in thermosetting coating composition (see Claim 17).

Moens teaches that polyester has  $M_n$  values, determined by GPC, are within the range of 1100-15500, where  $T_g$  is 40-80°C and melt viscosity is 5-15000 Mpa\* s (see Claims 1, 10, 12, 13)

Moens discloses fumaric, maleic, terephthalic acid, 1,4 butanediol and trimethylolpropane (see Column 6, line 5 and line 20).

Moens discloses amorphous polyester containing 70-100% mol of Isophthalic Acid 0-30% of at least one other aliphatic acid 70-100 mol% of neopentyl diol and 0-30mol% of at least one other aliphatic polyol (Abstract).

Moens discloses thermosetting composition, having 4-50% wt of crosslinking agent hydroxyalkylamide (see Claims 17 and 19), 55- 95%wt of the above amorphous polyester (see Claim 1), light adsorbers, pigments, etc.

Regarding claim 34, Moens teaches pigments and flow control agents (see Column 9, line 10).

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In reference to claims 39-41, Moens teaches coating process, where substrate is a metal, comprising application of thermosetting powder by electrostatic or gun deposition with following heating at temperature of 150-220C.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan et al (US 5889126) herein Kaplan in view of Moens.

Regarding claims 29-33, Kaplan discloses powdered thermosetting compositions which comprise:

A powdered thermosetting composition comprising:

a) a carboxylic acid group containing amorphous polyester having an acid number of from 10 to 400 mg KOH/g (see Abstract) and Mn within the range of 300-15000 (see Claim 2) prepared from:

(a) a polyacid constituent comprising:

(i) at least 50 mol, preferably 80 mol of isophthalic acid (IPA) (see Column 2, line 55); and

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(ii) the balance of another aliphatic, cycloaliphatic or aromatic polyacid, including cyclohexanedicarboxylic acid (see Column 2, line 65);

and

(b) a polyol constituent comprising:

(i) one or more of a linear chain aliphatic C4-16 diol (see Column 3, line 10);

(ii) at least 50% mol of neopentyl glycol (NPG) (see Column 3, line 20);

(iii) another linear chain aliphatic and/or cycloaliphatic diol, including 1,4 butanediol, ethylene glycol trimethylolpropane (see Column 3, line 15).;

and

(iv) small amount of a polyol with 3 or more hydroxyl groups (see Column 3, line 20); and

J3) a cross-linking agent having at least two hydroxyalkylamide groups (see Abstract); where powdered thermosetting composition contains no semi-crystalline polyester.

Regarding Claims 34, 40 and 41, Kaplan teaches flow control agent (see Column 5, line 30), film application apparatus, coating temperature of 200C and aluminium plate substrate (see Column 8, line 65).

In addition note that components of claims 30, 32,33 and 37 are optional.

Note that Kaplan does not teach ICI (cone/plate) viscosity values at 200C. However, since the above value primarily depends on Molecular Weight, Kaplan's composition meets the viscosity values of Claim 35.

Kaplan does not disclose exact composition of amorphous polyester as claimed in Claim 20. Consequently, since T<sub>g</sub> is a function of the composition structure, Kaplan does not teach T<sub>g</sub> values within the claimed range. Therefore, limitations of the claims 35 and 36, claiming properties of the composition are met by Kaplan, since the reference teaches all the components of the composition.

However, Kaplan's disclosure does not preclude the composition of Claim 29 of the Application examined, since the reference discloses all the claimed components. According to MPEP 2123, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments (see also *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971), *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) , *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

In addition, Moens teaches powdered thermosetting composition, having the same structure as claimed in Claim 20 of the Application.

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Moens discloses thermosetting composition (see Abstract) comprising amorphous polyester with acid number within the range of 15-100 mg KOH (see Claim 1) containing 70-100% mol of Isophthalic Acid 0-30% of at least one other aliphatic acid 70-100 mol% of neopentyl diol and 0-30mo1% of at least one other aliphatic polyol (see Abstract).

Moens teaches that polyester has an,  $M_n$ , determined by GPC is within the range of 1100-15500,  $T_g$  is 40-80C and melt viscosity 5-15000 Mpa\* s (see Claims 1, 10, 12, 13) and hydroxyalkylamide as a crosslinking agent in thermosetting coating composition (see Claim 17).

Moens discloses fumaric, maleic acids and terephthalic acid and 1,4 butanediol, trimethylolpropane (see Column 6, line 5 and line 20).

Moens discloses amorphous polyester containing 70-100% mol of Isophthalic Acid 0-30% of at least one other aliphatic acid 70-100 mol% of neopentyl diol and 0-30mo1% of at least one other aliphatic polyol (Abstract).



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Moens discloses thermosetting composition, having 4-50% wt of crosslinking agent hydroxyalkylamide (see Claims 17 and 19), 55- 95%wt of the above amorphous polyester (see Claim 1), light adsorbers, pigments, etc.

Moens discloses a process for coating an article, comprising the steps of:

I) applying to the article by an electrostatic or friction charging gun (see Examples 15-16) on aluminum substrate.

the composition according to claim 20 to form a coating on the article, and II) heating said coating at a temperature of 200°C.

Moens teaches that his composition has a very good mechanical properties and excellent weatherability.

Therefore, it would have been obvious to a person of ordinary skills in the art to use Moens 's amorphous polymer in Kaplan's applications in order to achieve good mechanical properties and excellent weatherability.

### ***Response to Arguments***

Applicant's arguments filed 4/20/2008 have been fully considered but they are not persuasive.

Applicant argues that only Example 3 of Kaplan relates to a carboxy-functional amorphous polyester. However, this example teaches a terephthalic acid-rich polyester. Isophthalic acid is only present at 10 % mole.

However, Kaplan teaches that tere- and isophthalic acid can be used interchangeably (see Column 2, line 55).

According to MPEP 2123, disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments (see also *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971), *In re Gurley*, 27 F.3d 551, 554, 31 USPQ2d 1130, 1132 (Fed. Cir. 1994) , *In re Fulton*, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

The argument can be applied to NPG. Kaplan teaches at least 50% mol of neopentyl glycol (NPG) (see Column 3, line 20), which is within the claimed range.

Applicant argues that in contrary to Kaplan, the claimed invention recites a carboxyl-functional polyester containing no semi- crystalline polyester.

Examiner disagrees. First, language of claims (“comprising”) does not preclude addition of any other material beside ones claimed. Second, Kaplan teaches amorphous and /or semicrystalline copolyesters (see Abstract).

Regarding Moens, applicant argues that reference used a mixture of amorphous and semicrystalline components.

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However, language of claims ("comprising") does not preclude addition of any other material beside ones claimed, Additionally, the content of semicrystalline component in Moens can be as low as 5% (see Column 6, line 35).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREGORY LISTVOYB whose telephone number is (571)272-6105. The examiner can normally be reached on 10am-7pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571) 272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James J. Seidleck/

Supervisory Patent Examiner, Art Unit 1796

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